



Combining knowledge and expertise

How businesses and academia could benefit from our work with the EPSRC Centre for Innovative Manufacturing in Through-life Engineering Services

Challenge

The UK remains a key international player in many high-value engineering sectors, including aerospace and defence. However, these sectors are becoming more competitive as emerging economies enter the market. Consequently, many large UK engineering companies are moving their offering from one based on sale of products to one based on high-value services linked to products. This fundamental shift requires significant innovation.

Solution

We have entered into a strategic partnership with the £11.1m national EPSRC Centre for Innovative Manufacturing in Through-life Engineering Services, which is hosted at Cranfield University and Durham University.

The centre's Director is Professor Rajkumar Roy. "TES (through-life engineering services) are the technical services necessary to guarantee the desired, predictable performance of a complex engineering system throughout its expected operational life, with optimum whole-life costs," he explains.

"The key question is how should we better design and manufacture complex systems so that their operational life is extended, with optimum whole-life cost? This is crucial for UK manufacturing, because 55 per cent of current manufacturing revenue for large companies comes from TES. So it's very important that we develop technologies and best practice to support innovation and industrial development.

"Our strategic partnership with BSI is highly significant. If the UK really wants to be a world leader in this field, we need to create TES standards that enable and drive innovation. Solutions developed by individual manufacturers in isolation aren't the answer."

Supervised by Professor Roy and Centre Manager Andy Shaw, eight MSc students carried out a three-month project that set out to identify where obsolescence management standards needed to be improved or created. "We shared the findings with BSI and the project also led to the development of new TES terminologies, which have been submitted in draft form to BSI's obsolescence management technical committee."

"If the UK really wants to be a world leader, we need to create TES standards that enable and drive innovation"

Professor Rajkumar Roy, Director of the EPSRC Centre for Innovative Manufacturing in Through-life Engineering Services

Outcome

Following input from stakeholders from industry and elsewhere on the committee, Professor Roy hopes the draft forms the basis for what will become a consensus standard that will help UK manufacturers.

"We're looking at many other important areas," he continues. "For example, how do you assess the capability of the supply chain for obsolescence management? Where there are no TES standards, we will work with BSI and others to help create them, because it will help UK manufacturers."

To get involved in standards please visit bsigroup.com/standards

bsi.